

IN THE SPECIFICATION

On page 4, please replace the paragraph between lines 33-37 with the following amended paragraph:

G¹ Figure 1 shows the alignment of the serine/threonine (S/T) kinase domains (I-VIII) of related receptors from transmembrane proteins, including embodiments of the present invention. The nomenclature of the subdomains is accordingly to Hanks et al (1988). The sequences displayed are (from top to bottom) SEQ ID NO: 30 to 33.

On page 5, please replace the paragraph between lines 5-10 with the following amended paragraph:

G² Figure 3 is a comparison of the amino-acid sequences of human activin type II receptor (Act R-II)(SEQ ID NO: 34), mouse activin type IIB receptor (Act R-IIB)(SEQ ID NO: 35), human TGF- β type II receptor (T β R-II)(SEQ ID NO: 36), human TGF- β type I receptor (ALK-5)(SEQ ID NO: 10), human activin receptor type IA (ALK-2)(SEQ ID NO: 4), and type IB (ALK-4)(SEQ ID NO: 8), ALKs 1 & 3 (SEQ ID NO: 2 and SEQ ID NO: 6) and mouse ALK-6 (SEQ ID NO: 18).

On page 5, please replace the paragraph between lines 14-16 with the following amended paragraph:

G³ Figure 5 shows the sequence alignment of the cysteine- rich domains of the ALKs (position 34-95 of SEQ ID NO: 2, position 35-99 of SEQ ID NO: 4, position 59-130 of SEQ ID NO: 6, position 34-101 of SEQ ID NO: 8 and position 34-106 of SEQ ID NO: 9), T β R-II (position 30-110 of SEQ ID NO: 36), Act R-II (position 29-109 of SEQ ID NO: 34), Act R-IIB (position 49-143 of SEQ ID NO: 35) and daf-1 (position 56-152 of SEQ ID NO: 37) receptors.

On page 19, please replace the paragraph between lines 16-23 with the following amended paragraph:

64 The catalytic domains of kinases can be divided into 12 subdomains with stretches of conserved amino-acid residues. The key motifs are found in serine/threonine kinase receptors suggesting that they are functional kinases. The consensus sequence for the binding of ATP (Gly-X-Gly-X-X-Gly, SEQ ID NO. 26, in subdomain I followed by a Lys residue further downstream in subdomain II) is found in all the ALKs.

On page 20, please replace Table 2 with the following amended Table 2:

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KINASE	SUBDOMAINS	
	VIB	VIII
Serine/threonine kinase consensus	DLKPEN <u>SEQ ID NO: 38</u>	G (T/S) XX (Y/F) X <u>SEQ ID NO: 43</u>
Tyrosine kinase consensus	DLAARN <u>SEQ ID NO: 39</u>	XP(I/V) (K/R) W (T/M) <u>SEQ ID NO: 44</u>
Act R-II	DIKSKN <u>SEQ ID NO: 40</u>	GTRRYM <u>SEQ ID NO: 45</u>
Act R-IIB	DFKSKN <u>SEQ ID NO: 41</u>	GTRRYM <u>SEQ ID NO: 45</u>
TBR-II	DLKSSN <u>SEQ ID NO: 42</u>	GTARYM <u>SEQ ID NO: 46</u>
ALK-I	DFKSRN <u>SEQ ID NO: 27</u>	GTKRYM <u>SEQ ID NO: 29</u>
ALK -2, -3, -4, -5, & -6	DLKSKN <u>SEQ ID NO: 28</u>	GTKRYM <u>SEQ ID NO: 29</u>

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